Complete Summary

GUIDELINE TITLE

Recommendations for the evaluation and management of nausea and vomiting of early pregnancy (≤20 weeks gestation).

BIBLIOGRAPHIC SOURCE(S)

University of Texas at Austin, School of Nursing, Family Nurse Practitioner Program. Evaluation and management of nausea and vomiting in early pregnancy (less than or equal to 20 weeks gestation). Austin (TX): University of Texas at Austin, School of Nursing; 2002 May. 19 p. [39 references]

GUIDELINE STATUS

This is the current release of this guideline.

COMPLETE SUMMARY CONTENT

SCOPE

DISEASE/CONDITION(S)

- Nausea
- Vomiting
- Pregnancy

GUIDELINE CATEGORY

Diagnosis
Evaluation
Management

CLINICAL SPECIALTY

Family Practice
Nursing
Obstetrics and Gynecology

INTENDED USERS

Advanced Practice Nurses
Nurses
Physician Assistants
Physicians

GUIDELINE OBJECTIVE(S)

To provide health care providers with evidenced-based practice guidelines regarding the evaluation and treatment of nausea and vomiting of early pregnancy

TARGET POPULATION

Pregnant women with nausea and vomiting of early pregnancy (≤ 20 weeks gestation)

INTERVENTIONS AND PRACTICES CONSIDERED

Screening/Diagnosis

1. Subjective assessment
    - History of pregnancy, diet, current medications, past medical and surgical history, social history, history of present illness, associated symptoms
    - Evaluation tools: Rhodes Index of Nausea and Vomiting
    - Focused review of systems (general, gastrointestinal, psychological, genitourinary)
2. Objective assessment
    - Focused physical assessment (vital signs, appearance, weight, hydration, cardiovascular status, abdominal, genitourinary, fetal)
    - Diagnostic procedures as indicated (urinalysis, electrolytes, thyroid stimulating hormone (TSH), complete blood count (CBC), amylase, lipase, liver profile, imaging, quantitative beta human chorionic gonadotropin (hCG)

Management

1. Nonpharmacologic therapy
    - Alteration of normal activities and reduction of environmental stimulation
    - Acupressure and acupuncture
    - Nutritional supplements [e.g. pyridoxine (vitamin B6), ginger]
2. Pharmacologic therapy
    - Doxylamine alone or in combination with pyridoxine

- Other first generation antihistamines (e.g. diphenhydramine, dimenhydrinate, hydroxyzine)
- Phenothiazines (e.g., promethazine)

3. Follow-up
4. Referral

MAJOR OUTCOMES CONSIDERED

- Validity and reliability of assessment tools
- Frequency, severity, and duration of nausea and vomiting in pregnancy
- Safety of management interventions for the mother and fetus

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Searches of Electronic Databases

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

The literature was searched through Pubmed, Medline, Cochrane Database, CINAHL, and medical references.

NUMBER OF SOURCE DOCUMENTS

Thirty-seven

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Weighting According to a Rating Scheme (Scheme Given)

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Quality of Evidence

I. Evidence obtained from at least one properly randomized controlled trial.

II-1. Evidence obtained from well-designed controlled trials without randomization.

II-2. Evidence obtained from well-designed cohort or case-control analytic studies, preferably from more than one center or research group.

II-3. Evidence obtained from multiple time series with or without the intervention. Dramatic results in uncontrolled experiments (such as the results of the introduction of penicillin treatment in the 1940s) could also be regarded as this type of evidence.

III. Opinions of respected authorities, based on clinical experience descriptive studies and case reports or reports of expert committees.

Adapted from: U.S. DHHS, Office of Public Health & Science. U.S. Preventive Services Task Force, (1996). Guide to Clinical Preventive Services, (2nd ed.), Alexandria, VA: International Medical Publishing, Inc.

METHODS USED TO ANALYZE THE EVIDENCE

Review of Published Meta-Analyses
Systematic Review

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Not stated

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Not stated

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Strength of Recommendation

A. There is good evidence to support the recommendation that the treatment be specifically considered in the management of nausea and vomiting of pregnancy (NVP)
B. There is fair evidence to support the recommendation that the treatment be specifically considered in the management of NVP.
C. There is insufficient evidence to recommend for or against the inclusion of the treatment in the management of NVP, but recommendations may be made on other grounds.
D. There is fair evidence to support the recommendation that the treatment be excluded from consideration in the management of NVP.
E. There is good evidence to support the recommendation that the treatment be excluded from consideration in the management of NVP.

COST ANALYSIS

A formal cost analysis was not performed and published cost analyses were not reviewed.

METHOD OF GUIDELINE VALIDATION

External Peer Review
Internal Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

A draft was developed by a group of family nurse practitioner students. This draft was submitted to the University of Texas at Austin nursing faculty and expert reviewers for consideration. Revisions were made after recommendations were received.

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

Definitions for the grades of the evidence (I, II-1, II-2, II-3, III) and strength of the recommendations (A-E) are repeated at the end of the Major Recommendations field.

1. Complete a comprehensive history with special attention to obstetrical history and dietary intake. The history of present illness should include a detailed evaluation of onset, frequency, duration and character of emesis as well as precipitating and alleviating factors.
2. Obtain a baseline Rhodes Index of Nausea and Vomiting score. This index has been demonstrated to be an effective method of evaluating nausea and vomiting of pregnancy (NVP).
3. Complete a physical exam including a thorough abdominal assessment and evaluation of fetal well-being. Special attention should focus on signs of dehydration and electrolyte imbalance.
4. Perform diagnostic tests as indicated by the history and physical to rule out other causes of nausea and vomiting. The differential diagnoses include hyperemesis gravidarum, multiple gestation, molar pregnancy, thyroid disease, medication side effect, gastroenteritis, pancreatitis, hepatitis, cholecystitis, appendicitis, urinary tract infection and obstruction.
5. Lifestyle modifications may aid in the management of NVP. These include reduction of noxious odors and environmental stimuli and increased rest (strength of recommendation B; quality of evidence III), and small frequent protein meals (strength of recommendation A; quality of evidence II-1).
6. Clinical trials have found that P6 acupressure wristbands aid in the management of NVP. (strength of recommendation A; quality of evidence I).
7. Pyridoxine (vitamin B6) 10-25 mg PO TID has proven to be both safe and effective in reducing NVP. It is a first line treatment (strength of recommendation A; quality of evidence I).
8. Ginger 250 mg PO QID has been proven effective in treating NVP. Human studies show no adverse effects on the fetus. Ginger has been found to suppress gastric contractions and increase gastrointestinal motility (strength of recommendation B; quality of evidence I).
9. Antihistamines have been proven efficacious in treating NVP. Doxylamine 10 mg in combination with pyridoxine 10 mg up to four times a day is both safe and effective for NVP (strength of recommendation A; quality of evidence II-2). Follow up should be within 2-4 weeks or sooner if nausea and vomiting persist.

Definitions:

Strength of Recommendation

A. There is good evidence to support the recommendation that the treatment be specifically considered in the management of NVP.
B. There is fair evidence to support the recommendation that the treatment be specifically considered in the management of NVP.
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D. There is fair evidence to support the recommendation that the treatment be excluded from consideration in the management of NVP.
E. There is good evidence to support the recommendation that the treatment be excluded from consideration in the management of NVP.

Quality of Evidence

I. Evidence obtained from at least one properly randomized controlled trial.

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CLINICAL ALGORITHM(S)

The original guideline document contains a clinical algorithm for the evaluation and management of nausea and/or vomiting in early pregnancy.

EVIDENCE SUPPORTING THE RECOMMENDATIONS

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of evidence is identified and graded for selected recommendations (see "Major Recommendations").

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

This guideline will help the clinician assess and effectively manage nausea and vomiting in pregnant women during early pregnancy.

POTENTIAL HARMS

Side effects of medication:

- First generation antihistamines. Sedation is a common side effect.
- Phenothiazines. One case of fatal shock was reported when a pregnant woman with undiagnosed pheochromocytoma was given promethazine. Sedation is a common side effect.

QUALIFYING STATEMENTS

QUALIFYING STATEMENTS

Current randomized, double-blind, placebo-controlled trials of antinausea and antiemetic medications given in pregnancy are scarce due to the inherent ethical and medicolegal issues involved in such research. However, it is possible to draw some conclusions based on the evidence that is available.

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

An implementation strategy was not provided.

IMPLEMENTATION TOOLS

Clinical Algorithm

For information about availability, see the "Availability of Companion Documents" and "Patient Resources" fields below.

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

Getting Better

IOM DOMAIN

Effectiveness

IDENTIFYING INFORMATION AND AVAILABILITY

BIBLIOGRAPHIC SOURCE(S)

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ADAPTATION

Not applicable: The guideline was not adapted from another source.

DATE RELEASED

2002 May

GUIDELINE DEVELOPER(S)

University of Texas at Austin School of Nursing, Family Nurse Practitioner Program - Academic Institution

SOURCE(S) OF FUNDING

Not stated

GUIDELINE COMMITTEE

Practice Guidelines Committee

COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

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FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

Not stated

GUIDELINE STATUS

This is the current release of this guideline.

GUIDELINE AVAILABILITY

Electronic copies: The following formats are available:

- HTML
- Portable Document Format (PDF)

- ASCII Text

Print copies: Available from the University of Texas at Austin, School of Nursing. 1700 Red River, Austin, Texas, 78701-1499.

AVAILABILITY OF COMPANION DOCUMENTS

None available

PATIENT RESOURCES

None available

NGC STATUS

This NGC summary was completed by ECRI on October 3, 2002. The information was verified by the guideline developer on October 16, 2002.

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